

ABSTRACT OF THE DISCLOSURE

A method and system for probing with electrical test signals on an integrated circuit specimen using a scanning electron microscope (SEM) positioned for observing a surface of the specimen exposing electrically conductive terminals on the specimen. A carrier is provided for supporting the specimen in relation to the scanning electron microscope while a computer acquires an image identifying conductive path indicia of the surface of the specimen from the scanning electron microscope. A motorized manipulator remotely controlled by the computer manipulates a plurality of probes positionable on the surface of the specimen for conveying electrical test signals inside a vacuum chamber inner enclosure which houses the scanning electron microscope, the carrier, the motorized manipulator and the plurality of probes for analyzing the specimen in a vacuum. A feedthrough on the vacuum chamber couples electrical signals from the computer to the motorized manipulator and the plurality of probes. The computer communicates with the motorized manipulator for positioning the plurality of probes, and for applying electrical test signals to the terminals on the specimen using the image acquired by the computer to identify the electrically conductive terminals from the conductive path indicia of the surface of the specimen observed with the scanning electron microscope.